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10/826,167	04/16/2004	Franciscus Libertus Tuinstra	PTT-166 (402820US/2)	8559
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EXAMINER MAHMOUDZADEH, NIMA				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/826,167

**Applicant(s)**TUINSTR, FRANCISCUS  
LIBERTUS**Examiner**

NIMA MAHMOUDZADEH

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 27-29 is/are rejected.
- 7) ☒ Claim(s) 16-26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04/16/2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to include detailed information including names of the components and packets as described in the specification. For example, box 1a of Fig. 1 should be labeled as "client processor"; box 2a should be labeled as "server processor", etc. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: All figures are not described in specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 6, 7, 10, 14, 15 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sherman (US Patent No. 6,831,912) in view of Link et al. (US Patent No. 6,012,096).

**Regarding claim 1**, Sherman teaches a system for measuring the quality of a data network, the system comprising a client computer and a server computer, the client computer and the server computer being arranged to communicate via the data network using a connection-less transmission protocol (UDP is a connectionless protocol that, like TCP, runs on top of IP networks. See Fig. 1 and Fig. 3),

the server computer is arranged to send one or more timeout data packets to the client computer when a predefined amount of time lapsed since receiving the last data packet in the server computer (Column 5, lines 20-31 and also see Fig. 3).

Sherman fails to teach the client computer being arranged to send one or more data packets to the server computer, the data packets comprising a first timestamp indicating the time of sending, the server computer being arranged to receive at least one of the data packets, the server computer further being arranged to send, for each received data packet, a modified data packet to the client computer, the modified data packet comprising the first timestamp and a second timestamp indicating the time of receiving.

However, Link et al. teach the client computer being arranged to send one or more data packets to the server computer, the data packets comprising a first timestamp indicating the time of sending (Column 1, lines 65-67), the server computer being arranged to receive at least one of the data packets, the server computer further being arranged to send, for each received data packet, a modified data packet to the client computer, the modified data packet comprising the first timestamp and a second timestamp indicating the time of receiving (Column 2, lines 1-4),

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the frame structure taught by Sherman to include first and second time stamp disclosed by Link et al. in order to increase the quality of transmission.

**Regarding claim 6**, Sherman teaches a system according to claim 1, wherein each data packet comprise a sequence number (Column 2, lines 37-43).

**Regarding claim 7**, Sherman teaches a system according to claim 1, wherein the server processor is arranged to read from the server memory a server packet size value (Packets are being read from buffers (20 and 22) by 16 on Fig. 1),

Sherman fails to teach the modified data packet comprising a server payload, the server payload filling the modified data packet up to a second predefined size equal to the server packet size value. However, Link et al. teach the modified data packet comprising a server payload, the server payload filling the modified data packet up to a second predefined size equal to the server packet size value (Column 1, lines 65-67 and column 2, lines 1-4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system structure taught by Sherman to be able to utilize modified data packet disclosed by Link et al. in order improve the quality of data communication.

**Regarding claim 10**, Sherman teaches a system according to claim 1, wherein the connection-less transmission protocol is UDP/IP (Abstract , lines 16-25).

**Regarding claim 14**, Sherman teaches a system according to claim 1, wherein

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the client computer is arranged to store a logfile, the logfile comprising all modified data packets received from the server computer, the logfile further comprising all timeout data packets received from the server computer (In Fig. 4, 116, initialization message including the client IP address, port number, Ack\_window\_Size and Ack\_Window\_Timeout values are stored on the client node).

**Regarding claim 15**, Sherman teaches a system according to claim 14, wherein all modified data packets received from the server computer are stored in a first logfile, and all timeout data packets received from the server computer are stored in a second logfile (In Fig. 4, 118 Return Initialization message from the server to the client including Max\_Packet\_size and Initial\_Sequence\_No value are stored on the client node).

**Regarding claim 27**, Sherman teaches a method for measuring the quality of a data network in a system comprising a client computer and a server computer, the client computer and the server computer being arranged to communicate via the data network using a connection-less transmission protocol (UDP is a connectionless protocol that, like TCP, runs on top of IP networks. See Fig. 1 and Fig. 3), the method comprising the steps of:

sending one or more timeout data packets from the server computer to the client computer when a predefined amount of time lapsed since receiving the last data packet in the server computer (Column 5, lines 20-31 and see Fig. 3).

sending one or more data packets from the client computer to the server computer, the data packets comprising a first timestamp indicating the time of sending (Column 1, lines 65-67),

receiving at least one of the data packets in the server computer (Column 2, lines 1-4).

Sherman fails to teach sending, for each received data packet, a modified data packet from the server computer to the client computer, the modified data packet comprising the first timestamp and a second timestamp indicating the time of receiving. However, Link et al. teach sending, for each received data packet, a modified data packet from the server computer to the client computer, the modified data packet comprising the first timestamp and a second timestamp indicating the time of receiving (column 2, lines 1-4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the frame structure taught by Sherman to include first and second time stamp disclosed by Link et al. in order to increase the quality of transmission.

5. Claims 2-5, 8, 9, 11-13, 28, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sherman (US Patent No. 6,831,912) in view of Link et al. (US Patent No. 6,012,096) and further in view of Bapat (US Patent No. 5,862,326).

**Regarding claim 2**, Sherman in view of Link et al. teaches a system according to claim 1. Sherman further teaches the system wherein the server computer comprises a server processor (Fig. 1, 16) connected to a server memory (Fig. 1, 20 and 22), the server processor being arranged to read from the server memory (Fig. 1, 20) a timeout value indicating the predefined amount of time, a server interval value and a quantity value (Column 5, lines 20-31 and also see Fig. 3).



the server computer being arranged to send the timeout data packets with a server interval time equal to the server interval value, until a next data packet is received (Column 5, lines 20-31 and also see Fig. 3).

Sherman in view of Link et al. fail to teach the maximum number of timeout data packets equals the quantity value. However, Bapat teaches the maximum number of timeout data packets equals the quantity value (Column 3, lines 41-42).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify timeout value taught by Sherman in view of Link et al. to include Quantity value disclosed by Bapat in order to get maximum number of timeouts.

**Regarding claim 3,** Sherman in view of Link et al. teaches a system according to claim 2. Sherman further teaches the system wherein the client computer comprises a client processor (Fig. 1, 34) connected to a client memory (Fig. 1, 46 and 48), the client processor being arranged to read from the client memory for each data packet a client interval value, a client packet size value and a packet type value (Column 5, lines 20-31 and also see Fig. 3,

the client computer being arranged to send the data packets with a client interval time equal to the client interval value (Column 5, lines 20-31 and also see Fig. 3),

the data packets comprising the packet type value and a client payload, the client payload filling the data packets up to a first predefined size equal to the client packet size value (Column 9, lines 34-41 and tables 6 and 7).

**Regarding claim 4**, Sherman in view of Link et al. teaches a system according to claim 3. Sherman further teaches a system wherein the packet type value is a representation of "normal packets" or "burst packets" (Any packet can be normal packet. See Table 1).

**Regarding claim 5**, Sherman in view of Link et al. teaches a system according to claim 3. Sherman further teaches a system wherein the client memory is a file stored on a disk (Fig. 1, 46 and 48).

**Regarding claim 8**, Sherman in view of Link et al. teaches a system according to claim 3. Sherman further teaches a system wherein the client payload and/or the server payload comprises a predefined bit pattern (Fig. 2, 80).

**Regarding claim 9**, Sherman in view of Link et al. teaches a system according to claim 3. Sherman further teaches a system wherein the client payload and/or the server payload comprises a random bit pattern (Fig. 2, 92 and 94).

**Regarding claim 11**, Sherman in view of Link et al. teaches a system according to claim 2. Sherman further teaches a system wherein the client computer is arranged to send a configuration packet to the server computer, the configuration packet comprising the timeout value, the server interval value, the quantity value and/or the server packet size value (Column 5, lines 20-31 and also see initialization message in Fig. 2),

the server computer is arranged to receive the configuration packet (Column 5, lines 20-31 and also see initialization message in Fig. 2),

and the server processor is arranged to write to the server memory the timeout value, the server interval value, the quantity value and/or the server packet size value (Column 5, lines 20-31 and also see initialization message in Fig. 2).

**Regarding claim 12**, Sherman in view of Link et al. teaches a system according to claim 2. Sherman further teaches a system wherein, for the purpose of configuring the server computer, the client computer is arranged to communicate with the server computer via the data network using a connection-oriented transmission protocol (Fig. 3 and Fig. 2),

the server computer is arranged to receive configuration data from the client computer, the configuration data comprising the timeout value, the server interval value, the quantity value and/or the server packet size value (Column 5, lines 20-31 and also see initialization message in Fig. 2),

and the server processor is arranged to write to the server memory the timeout value, the server interval value, the quantity value and/or the server packet size value (Column 5, lines 20-31 and also see Fig. 3).

**Regarding claim 13**, Sherman in view of Link et al. teaches a system according to claim 12. Sherman further teaches a system wherein the connection-oriented transmission protocol is TCP/IP (Fig. 3).

**Regarding claim 28**, Sherman in view of Link et al. teaches a method according to claim 27. Sherman further teaches the method further comprising the steps of

reading from a server memory (Fig. 1, 20) in the server computer a timeout value indicating the predefined amount of time, a server interval value and a quantity value (Column 5, lines 20-31 and also see Fig. 3),

sending the timeout data packets with a server interval time equal to the server interval value, until a next data packet is received (Column 5, lines 20-31 and also see Fig. 3), except Sherman fails to teach the maximum number of timeout data packets equals the quantity value. However, Bapat teaches the maximum number of timeout data packets equals the quantity value (column 3, lines 41-42).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify timeout value taught by Sherman to include Quantity value disclosed by Bapat in order to get maximum number of timeouts.

**Regarding claim 29**, Sherman in view of Link et al. teaches a method according to claim 28. Sherman further teaches the method further comprising the steps of

reading from a client memory in the client computer for each data packet a client interval value, a client packet size value and a packet type value (Column 5, lines 20-31 and also see Fig. 3),

sending the data packets with a client interval time equal to the client interval value (Column 5, lines 20-31 and also see Fig. 3), the data packets comprising the packet type value and a client payload, the client payload filling the data packets up to a first predefined size equal to the client packet size value (column 9, lines 34-41 and tables 6 and 7).

***Allowable Subject Matter***

6. Claims 16-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

7. Any responses to this Office Action should be **faxed** to (571) 273-8300 or **mailed** to:

Commissioner for Patent  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Hand-delivered responses should be brought to**  
Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NIMA MAHMOUDZADEH whose telephone number is (571)270-3527. The examiner can normally be reached on Monday -Friday, 8-5pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benny Tieu can be reached on (571) 272-7490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status

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information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nima Mahmoudzadeh  
AU 4177

/Benny Q Tieu/  
Supervisory Patent Examiner, Art Unit 4177